

## RAW SEQUENCE LISTING

The Biotechnology Systems Branch of the Scientific and Technical Information Center (STIC) no errors detected.

Application Serial Number: 10/539,402  
Source: P4  
Date Processed by STIC: 6/27/05

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PCT

## RAW SEQUENCE LISTING

PATENT APPLICATION: US/10/539,402

DATE: 06/27/2005

TIME: 11:14:00

Input Set : A:\P10138-SEQ.txt

Output Set: N:\CRF4\06272005\J539402.raw

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3 <110> APPLICANT: Xerion Pharmaceuticals AG
4   Tufts University
6 <120> TITLE OF INVENTION: Neuropilin-1 Inhibitor
8 <130> FILE REFERENCE: XE12EPC
C--> 10 <140> CURRENT APPLICATION NUMBER: US/10/539,402
C--> 11 <141> CURRENT FILING DATE: 2005-06-17
13 <150> PRIOR APPLICATION NUMBER: US 60/435,893
14 <151> PRIOR FILING DATE: 2002-12-20
16 <150> PRIOR APPLICATION NUMBER: EP 03000615
17 <151> PRIOR FILING DATE: 2003-01-15
19 <160> NUMBER OF SEQ ID NOS: 108
21 <170> SOFTWARE: PatentIn version 3.1
23 <210> SEQ ID NO: 1
24 <211> LENGTH: 269
25 <212> TYPE: PRT
26 <213> ORGANISM: mouse
28 <400> SEQUENCE: 1
30 Glu Val Gln Leu Gln Gln Ser Gly Pro Glu Leu Val Lys Pro Gly Ala
31 1      5      10      15
34 Leu Val Lys Ile Ser Cys Lys Ala Ser Gly Tyr Thr Val Thr Ser Tyr
35      20      25      30
38 Asp Ile Asn Trp Val Lys Gln Arg Pro Gly Gln Gly Leu Glu Trp Ile
39      35      40      45
42 Gly Trp Ile Tyr Pro Gly Asp Gly Ser Thr Lys Tyr Asn Glu Lys Phe
43      50      55      60
46 Lys Gly Lys Ala Thr Leu Thr Val Asp Lys Ser Thr Thr Val Tyr
47 65      70      75      80
50 Met Gln Leu Ser Ser Leu Thr Ser Glu Asn Ser Ala Val Tyr Phe Cys
51      85      90      95
54 Ala Arg Gly Gly Lys Tyr Phe Asp Tyr Trp Gly Gln Gly Thr Thr Leu
55      100     105     110
58 Thr Val Ser Thr Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly
59      115     120     125
62 Gly Gly Ser Ala Leu Asp Ile Val Met Thr Gln Ser Pro Lys Phe Met
63      130     135     140
66 Ser Thr Ser Val Gly Asp Arg Val Ser Val Thr Cys Lys Ala Ser Gln
67 145     150     155     160
70 Asn Val Ala Thr Asn Val Ala Trp Tyr Gln Gln Lys Pro Gly Gln Ser
71      165     170     175
74 Pro Lys Pro Leu Thr Tyr Ser Ala Ser Phe Arg Ser Ser Gly Val Pro
75      180     185     190
78 Asp Arg Phe Thr Gly Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr Ile
79      195     200     205

```

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82 Ser Asn Val Gln Ser Glu Asp Leu Ala Glu Tyr Phe Cys Gln Gln Tyr
83      210                215                220
86 Asn Ser Tyr Pro Tyr Thr Phe Gly Gly Gly Thr Lys Leu Glu Ile Lys
87 225                230                235                240
90 Ala Ala Ala Gly Ala Pro Val Pro Tyr Pro Asp Pro Leu Glu Pro Arg
91      245                250                255
94 Gly Ala Ala Ser Ala Trp Ser His Pro Gln Phe Glu Lys
95      260                265
98 <210> SEQ ID NO: 2
99 <211> LENGTH: 288
100 <212> TYPE: PRT
101 <213> ORGANISM: mouse
103 <400> SEQUENCE: 2
105 Glu Val Gln Leu Leu Glu Ser Gly Gly Gly Leu Val Gln Pro Gly Gly
106 1      5      10      15
109 Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Ser Ser Tyr
110      20      25      30
113 Ala Met Ser Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
114      35      40      45
117 Ser Ala Ile Ser Gly Ser Gly Gly Ser Thr Tyr Tyr Ala Asp Ser Val
118      50      55      60
121 Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ser Lys Asn Thr Leu Tyr
122 65      70      75      80
125 Leu Gln Met Asn Ser Leu Arg Ala Glu Asp Thr Ala Val Tyr Tyr Cys
126      85      90      95
129 Ala Arg Asp Ser Gly Leu Gln Gln Gly Pro Arg Arg Arg Gly Ala Arg
130      100     105     110
133 Val Asn Phe Ser Tyr Tyr Gly Leu Asp Val Trp Gly Arg Gly Thr Thr
134      115     120     125
137 Val Thr Val Ser Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly
138      130     135     140
141 Gly Gly Gly Ser Ala Gln Ala Val Leu Thr Gln Pro Ser Ser Ala Ser
142 145     150     155     160
145 Gly Thr Pro Gly Gln Arg Val Thr Ile Ser Cys Ser Gly Ser Asn Ser
146      165     170     175
149 Asn Ile Gly Arg Asn Tyr Val Phe Trp Tyr Gln Gln Phe Pro Gly Thr
150      180     185     190
153 Ala Pro Lys Ile Leu Ile Tyr Arg Asn Asn Gln Arg Pro Ser Gly Val
154      195     200     205
157 Pro Asp Arg Phe Ser Gly Ser Lys Ser Gly Thr Ser Ala Ser Leu Ala
158      210     215     220
161 Ile Ser Gly Leu Arg Ser Glu Asp Glu Ala Asp Tyr Tyr Cys Ala Ser
162 225     230     235     240
165 Trp Asp Asp Ser Leu Thr Trp Val Phe Gly Gly Gly Thr Lys Val Thr
166      245     250     255
169 Val Leu Gly Ala Ala Ala Gly Ala Pro Val Pro Tyr Pro Asp Pro Leu
170      260     265     270
173 Glu Pro Arg Gly Ala Ala Ser Ala Trp Ser His Pro Gln Phe Glu Lys
174      275     280     285

```

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177 &lt;210&gt; SEQ ID NO: 3

178 &lt;211&gt; LENGTH: 810

179 &lt;212&gt; TYPE: DNA

180 &lt;213&gt; ORGANISM: mouse

182 &lt;400&gt; SEQUENCE: 3

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183 gaggtccagc tgcaacagtc tggacctgag ctggtgaagc ctgggggcttt agtgaagata      60
185 tcctgcaagg cctcgggata caccgtcaca agctacgata taaactgggt gaagcagagg      120
187 cctggacagg gacttgagtg gattggatgg atttatcctg gagatggtag tactaagtac      180
189 aatgagaaat tcaagggcaa ggccacactg actgtagaca aatcctccac cacagtctac      240
191 atgcagctca gcagcctgac ttctgagaac tctgcagctc atttctgtgc aagagggtgg      300
193 aaatactttg actactgggg ccaaggcacc actctcacag tgtcgacagg tggaggcggt      360
195 tcaggcggag gtggctctgg cgggtggcga agtgcactcg acattgtgat gacacagtct      420
197 ccaaaattca tgtccacatc agtaggagac agggtcagcg tcacctgcaa ggccagtcag      480
199 aatgtggcta ctaatgtagc ctggtatcaa cagaaaccag ggcaatctcc taaaccactg      540
201 acttactcgg catccttccg gtccagtggg gtccctgatc gcttcacagg cagtggatct      600
203 gggacagatt tcactctcac catcagcaat gtgcagctct aagacttggc agagtatttc      660
205 tgtcagcaat ataacagcta tccgtacacg ttccggagggg ggaccaagct ggaaataaaa      720
207 gcggccgcag gtgcgcgggt gccgtatcca gatccgctgg aaccgcgtgg ggccgcaagc      780
209 gcttggagcc accgcagtt cgaaaaataa      810

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212 &lt;210&gt; SEQ ID NO: 4

213 &lt;211&gt; LENGTH: 867

214 &lt;212&gt; TYPE: DNA

215 &lt;213&gt; ORGANISM: mouse

217 &lt;400&gt; SEQUENCE: 4

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218 gaggtgcagc tgttggagtc tgggggagggc ttggtacagc ctgggggggtc cctgagactc      60
220 tcctgtgcag cctctggatt caccttttagc agctatgcc a tgagctgggt ccgccaggct      120
222 ccagggaagg ggctggagtg ggtctcagct attagtggta gtggtggtag cacatactac      180
224 gcagactccg tgaagggccg gttcaccatc tccagagaca attccaagaa cacgctgtat      240
226 ctgcaaatga acagcctgag agccgaggac acggccgtgt attactgtgc gcgagactcg      300
228 gggctacagc agggaccccc ccgaagaggg gcccgagtaa atttctccta ctacgggtctg      360
230 gacgtctggg ggcggggggac cacggtcacc gtctcgagtg gaggcggcgg ttcaggcgga      420
232 ggtggctctg gcgggtggcg aagtgcacag gctgtgctga ctacgccgtc ctcagcgtct      480
234 gggacccccg ggcagagggt caccatctct tgttctggaa gcaactccaa catcggaagc      540
236 aattatgtat tctggtacca gcagttccca ggaacggccc ccaaaatcct catctacagg      600
238 aacaatcagc ggcctcagg ggtccctgac cgattctctg gctccaagtc tggcacatca      660
240 gctccctgg ccatcagtg gctccggtcc gaggatgagg ctgattatta ctgtgcatca      720
242 tgggatgaca gcctgacttg ggtgttcggc ggagggacca aggtcaccgt cctaggtgcg      780
244 gccgcaggtg cgcgggtgcc gtatccagat ccgctggaac cgcgtggggc cgcaagcgct      840
246 tggagccacc cgcagttcga aaaataa      867

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249 &lt;210&gt; SEQ ID NO: 5

250 &lt;211&gt; LENGTH: 246

251 &lt;212&gt; TYPE: PRT

252 &lt;213&gt; ORGANISM: human

254 &lt;400&gt; SEQUENCE: 5

```

256 Ala Ser Val Lys Val Ser Cys Lys Thr Ser Gly Tyr Thr Phe Ile Ala
257 1          5          10          15
260 Tyr Tyr Ile His Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp
261          20          25          30
264 Met Gly Arg Ile Asn Pro Asn Thr Gly Gly Ile Asn Leu Ala Gln Lys

```

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265          35          40          45
268 Phe Gln Gly Arg Val Thr Val Thr Arg Asp Thr Ser Ile Ser Thr Ala
269          50          55          60
272 His Met Glu Leu Ser Arg Leu Ser Ser Asp Asp Thr Ala Val Tyr Tyr
273 65          70          75          80
276 Cys Ala Arg Glu Arg Ile Val Pro Ala Gly Leu Arg Asn Arg Gly Met
277          85          90          95
280 Val Thr Ala Val Gly Met Asp Val Trp Gly Arg Gly Thr Leu Val Thr
281          100          105          110
284 Val Ser Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly
285          115          120          125
288 Gly Ser Ala Gln Ser Val Val Thr Gln Pro Pro Ser Met Ser Gly Thr
289          130          135          140
292 Pro Gly Gln Arg Val Thr Ile Ser Cys Ser Gly Ser Arg Ser Asn Ile
293 145          150          155          160
296 Gly Arg Asn Tyr Val Tyr Trp Tyr Gln Gln Phe Pro Gly Thr Ala Pro
297          165          170          175
300 Lys Leu Leu Ile Tyr Arg Asn Asn Glu Arg Pro Ser Gly Val Pro Asp
301          180          185          190
304 Arg Phe Ser Ala Ser Lys Ser Gly Thr Ser Ala Ser Leu Ala Ile Ser
305          195          200          205
308 Gly Leu Arg Ser Glu Asp Glu Ala Asp Tyr Tyr Cys Ala Thr Trp Asp
309          210          215          220
312 Asp Ser Leu Ser Gly Thr Trp Val Phe Gly Gly Gly Thr Lys Leu Thr
313 225          230          235          240
316 Val Leu Gly Ala Ala Ala
317          245

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320 &lt;210&gt; SEQ ID NO: 6

321 &lt;211&gt; LENGTH: 248

322 &lt;212&gt; TYPE: PRT

323 &lt;213&gt; ORGANISM: human

325 &lt;400&gt; SEQUENCE: 6

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327 Leu Leu Glu Ser Gly Gly Gly Leu Val Gln Pro Gly Gly Ser Leu Arg
328 1          5          10          15
331 Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Ser Ser Tyr Ala Met Ser
332          20          25          30
335 Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val Ser Ala Ile
336          35          40          45
339 Ser Gly Ser Gly Gly Ser Thr Tyr Tyr Ala Asp Ser Val Lys Gly Arg
340          50          55          60
343 Phe Thr Ile Ser Arg Asp Asn Ser Lys Asn Thr Leu Tyr Leu Gln Met
344 65          70          75          80
347 Asn Ser Leu Arg Ala Glu Asp Thr Ala Val Tyr Tyr Cys Ala Arg Gly
348          85          90          95
351 Gly Gly Arg Tyr Asp Ser Ser His Gly Phe Asp Ser Trp Gly Arg Gly
352          100          105          110
355 Thr Met Val Thr Val Ser Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly
356          115          120          125
359 Ser Gly Gly Gly Gly Ser Ala Leu Ser Tyr Glu Leu Thr Gln Pro Pro

```

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```

360      130      135      140
363 Ser Val Ser Val Ala Pro Gly Glu Thr Ala Thr Ile Thr Cys Gly Gly
364 145      150      155      160
367 Arg Ser Leu Gly Ser Lys Val Val His Trp Tyr Gln Gln Lys Pro Gly
368      165      170      175
371 Gln Ala Pro Thr Leu Val Ile Tyr Tyr Asp Ser Val Arg Pro Ser Gly
372      180      185      190
375 Val Pro Glu Arg Phe Ser Ala Ser Asn Ser Arg Leu Ser Ala Thr Leu
376      195      200      205
379 Thr Val Ser Arg Val Glu Ala Gly Asp Glu Ala Asp Tyr Tyr Cys Gln
380      210      215      220
383 Val Trp Asp Arg Ser Ser Asp His Tyr Val Phe Gly Thr Gly Thr Lys
384 225      230      235      240
387 Leu Thr Val Leu Gly Ala Ala Ala
388      245
391 <210> SEQ ID NO: 7
392 <211> LENGTH: 248
393 <212> TYPE: PRT
394 <213> ORGANISM: human
396 <400> SEQUENCE: 7
398 Gln Leu Leu Glu Ser Gly Gly Gly Leu Val Gln Pro Gly Gly Ser Leu
399 1      5      10      15
402 Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Ser Ser Tyr Ala Met
403      20      25      30
406 Ser Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val Ser Ala
407      35      40      45
410 Ile Ser Gly Ser Gly Gly Ser Thr Tyr Tyr Ala Asp Ser Val Lys Gly
411      50      55      60
414 Arg Phe Thr Ile Ser Arg Asp Asn Ser Lys Asn Thr Leu Tyr Leu Gln
415 65      70      75      80
418 Met Asn Ser Leu Arg Ala Glu Asp Thr Ala Val Tyr Tyr Cys Ala Arg
419      85      90      95
422 Asp Trp Arg Trp Gln Gln Phe Gly Gly Trp Phe Asp Pro Trp Gly Arg
423      100      105      110
426 Gly Thr Leu Val Thr Val Ser Ser Gly Gly Gly Gly Ser Gly Gly Gly
427      115      120      125
430 Gly Ser Gly Gly Gly Gly Ser Ala Leu Glu Thr Thr Leu Thr Gln Ser
431      130      135      140
434 Pro Ala Thr Leu Ser Leu Ser Pro Gly Glu Thr Ala Thr Leu Phe Cys
435 145      150      155      160
438 Arg Ala Ser Gln Ser Val Arg Asn Asn Leu Val Trp Tyr Gln Gln Lys
439      165      170      175
442 Leu Gly Gln Ala Pro Arg Leu Leu Ile Phe Gly Ala Ser Thr Arg Ala
443      180      185      190
446 Ser Gly Ile Pro Asp Arg Phe Thr Gly Ser Gly Ser Gly Thr Asp Phe
447      195      200      205
450 Ser Leu Thr Ile Thr Lys Leu Glu Pro Glu Asp Phe Ala Val Tyr Tyr
451      210      215      220
454 Cys Gln Arg Tyr Gly Gly Phe Pro Ile Thr Phe Gly Gln Gly Thr Arg

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VERIFICATION SUMMARY

PATENT APPLICATION: US/10/539,402

DATE: 06/27/2005

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Input Set : A:\P10138-SEQ.txt

Output Set: N:\CRF4\06272005\J539402.raw

L:10 M:270 C: Current Application Number differs, Replaced Current Application Number

✓ L:11 M:271 C: Current Filing Date differs, Replaced Current Filing Date